



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/661,693	09/12/2003	Kenneth H. Kowalski	03804/04169	7364

24024 7590 06/17/2004

CALFEE HALTER & GRISWOLD, LLP
800 SUPERIOR AVENUE
SUITE 1400
CLEVELAND, OH 44114

EXAMINER

BELLAMY, TAMIKO D

ART UNIT	PAPER NUMBER
----------	--------------

2856

DATE MAILED: 06/17/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 10/661,693	Applicant(s) KOWALSKI, KENNETH H.	
	Examiner Tamiko D. Bellamy	Art Unit 2856	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 12 September 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-21 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-21 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date <u>5/22/04</u> | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claims 1, 3, 4, 10-13, 16, and 19 are rejected under 35 U.S.C. 102(b) as being anticipated by Brown et al. (6,067,855).

Re to claims 1 and 11, as depicted in fig. 2, Brown et al. discloses that electronic sensors (31) are displaced vertically along the height of the cylinder, wherein the sensors (31) have LED indicators (col. 4, lines 65-67). Brown et al. discloses applying fig. 3 to the embodiment of fig. 2, wherein a magnetic reed switch (40) is within each electronic sensor (31), and the corresponding LED (41) lights up (col. 7, lines 22-30). Re to the further limitations of claim 11, as depicted in fig. 5, brown et al discloses a remote readout.

Re to claim 3, as depicted in fig. 5, Brown et al. discloses a remote readout (e.g., computer 60).

Re to claim 4, as depicted in fig. 3, Brown et al. discloses each of the LEDs (41) comprise a single column of lights (41) associated in one-on-one relationship with the plurality of switches (40).

Re to claim 10, as depicted in fig. 3, the switches and the lights are on the same circuit board.

Re to claims 12 and 19, Brown et al. discloses that when the magnetic reed (40) is switched, the corresponding light (e.g., LED indicator 41) lights up (col. 7, lines 26-28).

Re to claim 13, as depicted in fig. 3, Brown et al. discloses each of the LEDs (41) comprise a single column of lights (41).

Re to claim 16, as depicted in figs. 2 and 3, Brown et al. discloses each of the LEDs (41) comprise a single column of lights (41) associated in one-on-one relationship with the plurality of switches (40). Brown et al. discloses a circuit board (e.g., sensor strip 30) is adjacent to a container (1) of liquid (5).

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claim 2 is rejected under 35 U.S.C. 103(a) as being unpatentable over Brown et al. (6,067,855) in view of Issachar (6,028,521).

Re to claim 2, Brown et al. discloses magnetic reed switches. While, Brown et al. does not specifically disclose that the switches are Hall effect transistors, Brown et al specifically discloses (see col. 7, lines 13-15) that other magnetically actuated switches may also be suitable in place of the magnetic reed switch (40). Issachar discloses that the magnetically actuatable switch may be a reed switch or a hall-effect switch (col. 2, lines 30-31). Therefore, to modify Brown et al. by employing Hall effect transistors would have been obvious to one of ordinary

Art Unit: 2856

skill in the art at the time of the invention since Issachar teaches a liquid level sensing device having these design characteristics. The skilled artisan would be motivated to combine the teachings of Brown et al. and Issachar since Brown et al. states that his invention is applicable to measuring the liquid level of a container and Issachar is directed to monitoring the liquid level in a vessel.

5. Claims 5-9, 14, 15, 17, 20, and 21 are rejected under 35 U.S.C. 103(a) as being unpatentable over Brown et al. (6,067,855).

Re to claim 5 and 21, as depicted in fig. 3, Brown et al. discloses that each of the LEDs (41) comprise a single column of lights (41) associated in one-on-one relationship with the plurality of switches (40). Brown et al. lacks the detail of a second column of lights forming a pair with the first column of lights, and each pair associated with the plurality of switches. However, the duplication of components is a design consideration clearly in the preview of one having ordinary skill in the art. Therefore, to employ Brown et al. on a second column of lights would have been obvious to one of ordinary skill in the art at the time of the invention since this reference explicitly teaches its use on a measuring the liquid level of a container including a single column of lights (41).

Re to claims 6-9, 14, 15, 17, and 20 as depicted in fig. 3, Brown et al. discloses that each of the LEDs (41) comprise a single column of lights (41) having first lights (41) associated in one-on-one relationship with the plurality of switches (40). Brown et al. lacks the detail of a second column of lights having second lights that are a different color from the first lights. However, the duplication of components and simply the selection of a particular color is a design consideration clearly in the preview of one having

ordinary skill in the art. Therefore, to employ Brown et al. on a second column of lights of a different color would have been obvious to one of ordinary skill in the art at the time of the invention since this reference explicitly teaches its use on a measuring the liquid level of a container including a single column of lights (41).

6. Claim 18 is rejected under 35 U.S.C. 103(a) as being unpatentable over Brown et al. (6,067,855) in view of Issachar (6,028,521).

Re to claim 17, Brown et al. discloses magnetic reed switches. While, Brown et al. does not specifically disclose that the switches are Hall effect transistors, Brown et al. specifically discloses (see col. 7, lines 13-15) that other magnetically actuated switches may also be suitable in place of the magnetic reed switch (40). Issachar discloses that the magnetically actuatable switch may be a reed switch or a hall-effect switch (col. 2, lines 30-31). Therefore, to modify Brown et al. by employing Hall effect transistors would have been obvious to one of ordinary skill in the art at the time of the invention since Issachar teaches a liquid level sensing device having these design characteristics. The skilled artisan would be motivated to combine the teachings of Brown et al. and Issachar since Brown et al. states that his invention is applicable to measuring the liquid level of a container and Issachar is directed to monitoring the liquid level in a vessel.

Conclusion

7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Tamiko Bellamy whose telephone number is 571-272-2190. The examiner can normally be reached on Mondays, Tuesdays & Fridays 6:30 AM to 3:30PM; and on Wednesdays and Thursdays the examiner 6:30 AM to 11:30 AM.

Art Unit: 2856

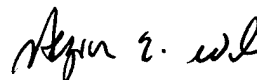
If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Hezron Williams can be reached on 571-272-2208. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Tamiko Bellamy

T.B.

June 9, 2004



HEZRON WILLIAMS
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2800